

## REMARKS

The Applicants have carefully reviewed and considered the Examiner's Action mailed July 14, 2006. Reconsideration is respectfully requested in view of the foregoing amendments and the comments set forth below.

By this Amendment, independent claims 1, 15 and 18 are amended. Accordingly, claims 1-20 are pending in the present application.

Claims 1-17 and 19-20 were rejected under 35 U.S.C. §112, second paragraph for the reason set forth in the middle of page 2 of the Action. By the foregoing amendments, independent claims 1 and 15 are amended to clarify the term "in which" (in claim 1) and the phrase "those signals" (in claims 1 and 15). With regard to the recitation of "those signals" in claims 1 and 15, the signals being referred to are clearly "the control signals received from the pointing device and the plurality of remote signaling devices." Accordingly, claims 1-17 and 19-20 are fully definite under 35 U.S.C. §112, second paragraph, and withdrawal of that rejection is respectfully requested.

Claim 18 is rejected under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent No. 6,683,628 to Nakagawa et al. (hereinafter referred to as "Nakagawa") as described at the top of page 3 of the Action. This rejection is respectfully traversed.

By the foregoing amendment to claim 18, the claimed invention now recites a receiver portion "for receiving signals from a plurality of remote signaling devices and a pointing device" (emphasis added). The option of the signals being received the remote signaling devices or the pointing device has been removed. Consequently, claim 18 is distinguished over Nakagawa as Nakagawa does not disclose an arrangement in which there is provided a plurality of signaling devices. Accordingly, Nakagawa cannot

disclose a receiver portion which receives signals from a plurality of remote signaling devices as required by claim 18. Withdrawal of the rejection under 35 U.S.C. §102(e) is respectfully requested as Nakagawa cannot disclose each and every feature of the claimed invention.

Claims 1, 4-5, 7, 10, 13, 15, 17 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa in view of U.S. Patent No. 6,920,614 to Schindler et al. (hereinafter referred to as “Schindler”) as described in the paragraphs spanning pages 4-7 of the Action. This rejection is respectfully traversed.

As the Examiner acknowledges, Nakagawa does not disclose an interactive whiteboard display system including a plurality of remote signaling devices as required by independent claims 1 and 15 of the present application. Nakagawa further does not disclose a plurality of remote signaling devices operable to transmit signals to a receiver portion of the display system of Nakagawa onto which an image is projected.

Consequently, Nakagawa does not disclose the claimed feature of the device onto which an image is projected being a communications hub of the display system arranged to receive control signals from the plurality of remote signaling devices as recited in independent claims 1 and 15 of the present application. Finally, Nakagawa cannot disclose the claimed feature where the communications hub (device onto which an image is projected) is arranged to transmit the control signals received from the pointing device and the plurality of remote signaling devices to the computing means, as recited in independent claims 1 and 15 of the present application.

It is the Examiner’s position that these features, not taught in Nakagawa, are found in Schindler. Schindler is not directed to an interactive whiteboard display system.

Instead, Schindler teaches a personal computer for controlling operation of an entertainment system. That is, user input can occur via remote controls 124, 126 to change the picture, etc. on the large screen monitor 122 of Schindler. Figure 1 of Schindler shows a personal computer 118 which is connected to different, non-interactive elements (e.g. VCR 172, video blaster 170, CD jukebox 169, etc.) of the entertainment system. The computer is also attached to a satellite receiver, a television, a surround sound system, etc. None of the systems attached to the entertainment system disclosed by Schindler comprise an interactive whiteboard system. Column 15, lines 41-46, of Schindler is clear that each of the remote devices 124, 126 communicate with personal computer 118. The personal computer 118 then determines which of the elements of the entertainment system the remote signals relate to, and forwards those signals as appropriate to the individual remote elements. Further, a person of ordinary skill in the art would not have envisaged an interactive whiteboard system being provided as an element of the entertainment system taught by Schindler. An interactive whiteboard system is used for interactive applications such as education applications where there is a need for interaction with an audience.

The purpose of the remote control systems of Schindler is to allow control of the entertainment system without requiring a clear line of sight to the personal computer thereby allowing the computer to be located in another room. This is a much different purpose than the claimed educational whiteboard display system and it is unclear why one of ordinary skill in the art would have been motivated to modify an interactive system like Nakagawa with a non-interactive entertainment system as taught by Schindler. Commonsense would appear to indicate that such a combination would not be

made. The motivation provided by the Examiner is to provide the user with an easier method of controlling a cursor the screen and to allow the user the ability to not stand next to the screen as he would with a pointing device. The Examiner has failed to point out what motivation there would be for a person skilled in the art reviewing the disclosure of Nakagawa, which relates to an interactive whiteboard display system, to turn to an entertainment system, such as disclosed by Schindler. It is respectfully submitted that there is no motivation to turn to Schindler when taking Nakagawa as a starting point.

A plurality of remote control devices in Schindler is not desirable. The presence of more than one remote control device is due to the fact that the entertainment system is made up of a number of different entertainment elements. For example, a television, a video recorder, and a satellite decoder are each provided with their own individual remote controls. Schindler provides a system where a computer system is used as the hub of the entertainment system to receive control signals from any one of the remote control devices, and controls the various elements of the entertainment system from the signals received from the individual remote control devices. Thus, Schindler provides a solution to the problem of multiple elements of an entertainment system each having their own remote control devices. This is clearly quite different to the arrangement of the claimed invention, which relates to an interactive whiteboard system which is used in an audience environment where members of the audience, such as classroom pupils, are each deliberately provided with individual remote signaling devices, such that they may interact with the whiteboard individually, for example during quizzes.

In an interactive whiteboard system, the motivation for providing a plurality of

remote signaling devices is to enable each member of the audience to have a way to communicate with the display device. The Examiner has suggested that the motivation is to provide a plurality of remote control devices so that the user (single) has an easier method of controlling the cursor on the screen or the user does not have to stand next to the screen. It is unclear why one of ordinary skill in the art would want to modify Nakagawa in this fashion. The claimed invention recites a plurality of remote signaling devices in combination with a pointing device, which is used in proximity with the screen. The recited remote signaling devices are for use by audience members, who are by their nature remote from the screen. The provision of the remote signaling devices is not for the purpose of improving control of a cursor, but so that the device onto which an image is projected receives signals from the plurality of remote signaling devices **and** the pointing device.

Furthermore, even if the skilled person reading Nakagawa did turn to Schindler, he would not be faced with any teaching which would be useful to incorporate in the interactive system disclosed by Nakagawa since Schindler is directed to interfacing a number of elements of an entertainment system and does not have any teaching concerning interactive whiteboards. Thus, there is no reason for one of ordinary skill in the art to conclude that any teaching in Schindler is relevant for the interactive whiteboard system of Nakagawa.

Even in the unlikely event that one of ordinary skill in the art did turn from Nakagawa to Schindler, Schindler would not provide the skilled person with the missing features of claims 1 and 15 as argued above. The features of claims 1 and 15 which are not disclosed by Nakagawa relate to the plurality of remote signaling devices. Moreover,

the claimed invention set forth in claims 1 and 15 require that the device onto which an image is projected from the projector is a communications hub of the display system which is arranged to 1) receive control signals from the plurality of remote signaling devices; and 2) to transmit the control signals from the plurality of remote signaling devices to the computing means. This feature is not disclosed in Schindler as it teaches a personal computer that is not the device onto which an image is projected as the receiver of the remote signals. That is, Schindler teaches that personal computer 118 is the communications hub of the entertainment system. The remote control devices of Schindler all communicate with the personal computer (i.e., the communications hub of the entertainment system). Thus, even if combined, a personal computer 4 shown in Figure 4 of Nakagawa would be adapted to receive the signals from the remote control devices as taught by Schindler. This is not the claimed invention. Consequently, even if combined, the claimed invention would not result. It is respectfully submitted that no combination of Nakagawa and Schindler can render the claimed invention unpatentable. Withdrawal of the rejection of claims 1, 4-5, 7, 10, 13, 15, 17 and 19 under 35 U.S.C. §103(a) is respectfully requested.

Claims 2 and 3 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa-Schindler in view of U.S. Patent No. 5,561,446 to Montlick for the reasons set forth in the paragraphs spanning pages 7-8 of the Action. Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa-Schindler in view of U.S. Patent No. 5,583,323 to Zurstadt as described in the middle of page 8 of the Action. Claims 8 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa-Schindler in view of U.S. Patent No. 5,790,114 to Geaghan for the reasons set forth in the

paragraphs spanning pages 8-9 of the Action. Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa-Schindler in view of U.S. Patent No. 4,538,993 to Krumholz as described in the paragraphs spanning pages 9-10 of the Action. Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa-Schindler in view of U.S. Patent No. 5,689,562 to Hassan et al. (hereinafter referred to as “Hassan” as described in the middle of page 10 of the Action. Claims 14 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa-Schindler in view of U.S. Patent No. 5,528,235 to Lin et al. (hereinafter referred to as “Lin”) and U.S. Patent No. 5,854,621 to Junod et al. (hereinafter referred to as “Junod”), respectively for the reasons set forth in paragraph spanning pages 10-11 and 11-12 of the Action. Finally, claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Nakagawa-Schindler in view of Montlick and Junod as explained on page 12 of the Action. These rejections are respectfully traversed.

Montlick, Zurstadt, Geaghan, Krumholz, Hassan, Lin and Junod fail to disclose a plurality of signaling devices in addition to a pointing device for an interactive whiteboard display system. Thus, the above references cannot provide the missing teachings and/or motivation to modify Nakagawa to obtain the interactive whiteboard display system according to the claimed invention set forth in independent claims 1, 15 and 18 and their depending claims in the present application. Since the claims rejected by the above references depend from allowable independent claims, it is submitted that the dependent claims are allowable as well.

In view of the foregoing amendments and the comments distinguishing the claimed invention from the prior art of record, it is believed that claims 1-20 are

allowable over the prior art of record and Applicants request withdrawal of the above rejections. Accordingly, it is respectfully requested that a Notice of Allowance be issued indicating that claims 1-20 are allowed over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this application, the Examiner is encouraged to telephone the undersigned counsel to arrange such a conference.

Date: September 25, 2007

Respectfully submitted,



Catherine M. Voorhees

Registration No. 33,074

VENABLE LLP

P.O. Box 34385

Washington, D.C. 20043-9998

Telephone: (202) 344-4000

Telefax: (202) 344-8300

CMV/elw